

AUTHOR INDEX TO VOLUME 47

- Allison, J., R. Brun, F. Bruyant, F.W. Bullock, C.Y. Chang, J-J. Dumont, P. Hattersley, R.J. Hemingway, P.R. Hobson, D. Hochman, T. Kawamoto, B. Lorazo, J. Mallet, A.C. McPherson, S.W. O'Neale, G. Patrick, A. Possoz, A. Rossi, D.R. Ward, C.P. Ward and P. Zanarini, An application of the GEANT3 geometry package to the description of the OPAL detector 47 (1987) 55
- Amaee, B., see C. Schatz 47 (1987) 45
- Au, S., see J.N. McMullin 47 (1987) 187
- Badavi, F.F., L.W. Townsend, J.W. Wilson and J.W. Norbury, An algorithm for a semiempirical nuclear fragmentation model 47 (1987) 281
- Baig, M., Simulation of the $\lambda\phi^4$ lattice theory on a loosely coupled array of processors 47 (1987) 181
- Bao, C.-g., Y.-p. Gan and X.-h. Lui, Erratum notice. Program to calculate transformation brackets of hyperspherical harmonic functions of a three body system (CPC 36 (1985) 401) 47 (1987) 367
- Barkai, D., M. Campostrini, K.J.M. Moriarty and C. Rebbi, Erratum notice. Applications development on the ETA-10 (CPC 46 (1987) 13) 47 (1987) 368
- Barnett, A.R., see I.J. Thompson 47 (1987) 245
- Berrington, K.A., see J. Tennyson 47 (1987) 207
- Bouanich, J.P., Analytic vibration-rotational matrix elements for diatomic molecules 47 (1987) 259
- Brackbill, J.U., On modeling angular momentum and vorticity in compressible fluid flow 47 (1987) 1
- Brun, R., see J. Allison 47 (1987) 55
- Bruyant, F., see J. Allison 47 (1987) 55
- Bullock, F.W., see J. Allison 47 (1987) 55
- Burgess, A. and C.T. Whelan, BETRT - A procedure to evaluate the cross section for electron-hydrogen collisions in the Bethe approximation to the reactance matrix 47 (1987) 295
- Burke, P.G., see J. Tennyson 47 (1987) 207
- Cabras, G., V. Roberto and G. Salemi, UNIDFT: A package of optimized discrete Fourier transforms 47 (1987) 113
- Campostrini, M., see D. Barkai 47 (1987) 368
- Capjack, C.E., see J.N. McMullin 47 (1987) 187
- Chang, C.Y., see J. Allison 47 (1987) 55
- Chiu, T.-W. and T.-S. Guu, A shift-register sequence random number generator implemented on the microcomputers with 8088/8086 and 8087 47 (1987) 129
- Clark, P., see S. Fraga 47 (1987) 159
- Climenhaga, J.D., see S. Fraga 47 (1987) 159
- Connor, J.N.L., see C. Schatz 47 (1987) 45
- Dagher, M. and H. Kobeissi, FFC - a program for calculating Franck-Condon factors and *R*-centroids for transitions between the vibrational-rotational levels of two electronic states of a diatomic molecule 47 (1987) 305

- Di Genova, G. and M. Matone, A compact algorithm for the implementation of Monte Carlo kinematics in computer simulations of d -dimensional lattice gauge theories 47 (1987) 235
- Diercksen, G.H.F. and J. Karwowski, Invariance properties of the moments of the Hamiltonian matrix as a test of the correctness of configuration interaction programs 47 (1987) 83
- Dumont, J.-J., see J. Allison 47 (1987) 55
- Eastwood, J.W., ORTHOVEC: A REDUCE program for 3-D vector analysis in orthogonal curvilinear coordinates 47 (1987) 139
- Fang, M.T.C., see J.F. Zhang 47 (1987) 267
- Fraga, S., M. Klobukowski, J. Muszynska, K.M.S. Saxena, J.A. Sordo, J.D. Climenhaga and P. Clark, Research in atomic structure: a configuration interaction program with relativistic corrections 47 (1987) 159
- Gan, Y.-p., F.-q. Liu and T.K. Lim, Program to calculate Raynal-Revai coefficients of a three-body system in two or three dimensions 47 (1987) 149
- Gan, Y.-p., see C.-g. Bao 47 (1987) 367
- García-Toraño, E. and A. Grau Malonda, EFYGA, a Monte Carlo program to compute the interaction probability and the counting efficiency of gamma rays in liquid scintillators 47 (1987) 341
- Garrett, B.C., see A.D. Isaacson 47 (1987) 91
- Grau Malonda, A., see E. García-Toraño 47 (1987) 341
- Griffiths, D.F., Book review 47 (1987) 365
- Guu, T.-S., see T.-W. Chiu 47 (1987) 129
- Hancock, G.C., see A.D. Isaacson 47 (1987) 91
- Hattersley, P., see J. Allison 47 (1987) 55
- Hemingway, R.J., see J. Allison 47 (1987) 55
- Herman, M. and G. Reffo, Codes for the combinatorial calculation of few quasiparticle state densities in spherical and deformed nuclei 47 (1987) 103
- Hobson, P.R., see J. Allison 47 (1987) 55
- Hochman, D., see J. Allison 47 (1987) 55
- Isaacson, A.D., D.G. Truhlar, S.N. Rai, R. Steckler, G.C. Hancock, B.C. Garrett and M.J. Redmon, POLYRATE: A general computer program for variational transition state theory and semiclassical tunneling calculations of chemical reaction rates 47 (1987) 91
- Jamieson, M.J., Numerical solution of the restricted rotor eigenvalue equation in molecular collision calculations 47 (1987) 229
- Judge, R.H., A new version of 'ASYROT' for the HP Vectra or any IBM AT compatible computer 47 (1987) 361
- Karwowski, J., see G.H.F. Diercksen 47 (1987) 83
- Kawamoto, T., see J. Allison 47 (1987) 55
- Kirby, P., A simulation code for 3-dimensional non-linear incompressible resistive MHD in a periodic cylinder 47 (1987) 17
- Klobukowski, M., see S. Fraga 47 (1987) 159
- Kobeissi, H., see M. Dagher 47 (1987) 305

- Leander, G.A., Simulation of nuclear quasicontinuum gamma-ray spectra 47 (1987) 311
- Lim, T.K., see Y.-p. Gan 47 (1987) 149
- Liu, F.-q., see Y.-p. Gan 47 (1987) 149
- Lorazo, B., see J. Allison 47 (1987) 55
- Lui, X.-h., see C.-g. Bao 47 (1987) 367
- Máca, F. and M. Scheffler, A new version of the program for the calculation of the Green's function for a crystal surface or interface 47 (1987) 349
- Mallet, J., see J. Allison 47 (1987) 55
- Mann, P.J., Finite difference methods for the classical particle-particle gravitational N -body problem 47 (1987) 213
- Matone, M., see G. Di Genova 47 (1987) 235
- McMullin, J.N., C.E. Capjack and S. Au, Multiparabolic approximation for ray tracing in linear plasma columns 47 (1987) 187
- McPherson, A.C., see J. Allison 47 (1987) 55
- Moriarty, K.J.M. and C. Rebbi, Large-scale quantum field theory calculations on supercomputers 47 (1987) 75
- Moriarty, K.J.M., see D. Barkai 47 (1987) 368
- Muszynska, J., see S. Fraga 47 (1987) 159
- Newland, D.B., see J.F. Zhang 47 (1987) 267
- Norbury, J.W., see F.F. Badavi 47 (1987) 281
- O'Neale, S.W., see J. Allison 47 (1987) 55
- Patrick, G., see J. Allison 47 (1987) 55
- Possoz, A., see J. Allison 47 (1987) 55
- Rai, S.N., see A.D. Isaacson 47 (1987) 91
- Rand, D.W., PASCAL programs for identification of Lie algebras. Part 1. RADICAL (AALB - CPC 41 (1986) 105) 47 (1987) 369
- Rebbi, C., see K.J.M. Moriarty 47 (1987) 75
- Rebbi, C., see D. Barkai 47 (1987) 368
- Redmon, M.J., see A.D. Isaacson 47 (1987) 91
- Reffo, G., see M. Herman 47 (1987) 103
- Roberto, V., see G. Cabras 47 (1987) 113
- Roberts, L., Evaluation of the FPS-164 computer for high energy physics pattern recognition problems 47 (1987) 195
- Rossi, A., see J. Allison 47 (1987) 55
- Ryšavý, M., MISHA - a system for calculations with arbitrary arithmetic precision 47 (1987) 351
- Salemi, G., see G. Cabras 47 (1987) 113
- Saxena, K.M.S., see S. Fraga 47 (1987) 159
- Schatz, C., B. Amaee and J.N.L. Connor, The centrifugal sudden distorted wave method for calculating cross sections for chemical reactions: angular distributions for $\text{Cl} + \text{HCl} \rightarrow \text{ClH} + \text{Cl}$ 47 (1987) 45
- Scheffler, M., see F. Máca 47 (1987) 349
- Sordo, J.A., see S. Fraga 47 (1987) 159
- Steckler, R., see A.D. Isaacson 47 (1987) 91
- Succi, S., Cellular automata modeling on IBM 3090/VF 47 (1987) 173

- Tennyson, J., P.G. Burke and K.A. Berrington, The generation of continuum orbitals for molecular *R*-matrix calculations using Lagrange orthogonalisation 47 (1987) 207
- Thompson, I.J. and A.R. Barnett, Modified Bessel functions $I_\nu(z)$ and $K_\nu(z)$ of real order and complex argument, to selected accuracy 47 (1987) 245
- Townsend, L.W., see F.F. Badavi 47 (1987) 281
- Truhlar, D.G., see A.D. Isaacson 47 (1987) 91
- Ward, C.P., see J. Allison 47 (1987) 55
- Ward, D.R., see J. Allison 47 (1987) 55
- Whelan, C.T., see A. Burgess 47 (1987) 295
- Wilson, J.W., see F.F. Badavi 47 (1987) 281
- Zanarini, P., see J. Allison 47 (1987) 55
- Zhang, J.F., D.B. Newland and M.T.C. Fang, The computation of self-similar arcs 47 (1987) 267

PROGRAM INDEX TO VOLUME 47

Atomic physics

- Fraga, S., M. Klobukowski, J. Muszynska, K.M.S. Saxena, J.A. Sordo, J.D. Climenhaga and P. Clark
 RIAS (Fortran, 12551 cards). Research in atomic structure: a configuration interaction program with relativistic corrections ABBB 47 (1987) 159
- Burgess, A. and C.T. Whelan
 BETRT (Fortran, 1207 cards). BETRT – A procedure to evaluate the cross section for electron–hydrogen collisions in the Bethe approximation to the reactance matrix AAXK 47 (1987) 295

Computational methods

- Cabras, G., V. Roberto and G. Salemi
 UNIDFT (Fortran, 4710 cards). UNIDFT: A package of optimized discrete Fourier transforms AAXR 47 (1987) 113
- Chiu, T.-W. and T.-S. Guu
 TRCG (8086/87 Assembly Language, Pascal, 1037 cards). A shift-register sequence random number generator implemented on the microcomputers with 8088/8086 and 8087 AAXI 47 (1987) 129
- Gan, Y.-p., F.-q. Liu and T.K. Lim
 GYP (Fortran, 245 cards). Program to calculate Raynal–Revai coefficients of a three-body system in two or three dimensions AAXP 47 (1987) 149
- Thompson, I.J. and A.R. Barnett
 BESSCC (Fortran, 874 cards). Modified Bessel functions $I_\nu(z)$ and $K_\nu(z)$ of real order and complex argument, to selected accuracy ABBM 47 (1987) 245
- Ryšavý, M.
 MISHA (Fortran, 2456 cards). MISHA – a system for calculations with arbitrary arithmetic precision AAXU 47 (1987) 351
- Rand, D.W.
 000A correction 02/06/87 (Pascal). PASCAL programs for identification of Lie algebras. Part 1. RADICAL (AALB – CPC 41 (1986) 105) AALB 47 (1987) 369

Computer algebra

- Eastwood, J.W.
 ORTHOVEC (Reduce, 440 cards). ORTHOVEC: A REDUCE program for 3-D vector analysis in orthogonal curvilinear coordinates AAXY 47 (1987) 139

Molecular physics

- Isaacson, A.D., D.G. Truhlar, S.N. Rai, R. Steckler, G.C. Hancock, B.C. Garrett and M.J. Redmon
POLYRATE (Fortran, 21663 cards, Manual 204 pages). POLYRATE: A general computer program for variational transition state theory and semiclassical tunneling calculations of chemical reaction rates ABBD 47 (1987) 91
- Bouanich, J.P.
ROTVIBMATEL (Fortran, 10512 cards). Analytic vibration-rotational matrix elements for diatomic molecules ABBJ 47 (1987) 259
- Dagher, M. and H. Kobeissi
FFC (Fortran, 928 cards). FFC - a program for calculating Franck-Condon factors and *R*-centroids for transitions between the vibrational-rotational levels of two electronic states of a diatomic molecule ABBE 47 (1987) 305
- Judge, R.H.
ASYROT PC (Fortran, 4317 cards). A new version of 'ASYROT' for the HP Vectra or any IBM AT compatible computer ABBA 47 (1987) 361

Nuclear physics

- Herman, M. and G. Reffo
ICAR AND CONV (Fortran, 1883 cards). Codes for the combinatorial calculation of few quasiparticle state densities in spherical and deformed nuclei AAXS 47 (1987) 103
- Badavi, F.F., L.W. Townsend, J.W. Wilson and J.W. Norbury
NUCFRAG (Fortran, 944 cards). An algorithm for a semiempirical nuclear fragmentation model ABBG 47 (1987) 281
- Leander, G.A.
GAMBLE AND GAMANA (Fortran, 4794 cards). Simulation of nuclear quasi-continuum gamma-ray spectra ABBF 47 (1987) 311
- García-Toraño, E. and A. Grau Malonda
EFYGA (Fortran, 523 cards). EFYGA, a Monte Carlo program to compute the interaction probability and the counting efficiency of gamma rays in liquid scintillators ABBC 47 (1987) 341

Plasma physics

- Zhang, J.F., D.B. Newland and M.T.C. Fang
SSARC (Fortran, 2607 cards). The computation of self-similar arcs ABBI 47 (1987) 267

Solid state physics

- Máca, F. and M. Scheffler
SURFACE GREEN'S FUNCTION VER. 2 (Fortran, 3908 cards). A new version of the program for the calculation of the Green's function for a crystal surface or interface AAXZ 47 (1987) 349

